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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,413	10/30/2003	Simion Coca	1731D1	7236

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PPG INDUSTRIES INC
INTELLECTUAL PROPERTY DEPT
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EXAMINER

PEZZUTO, HELEN LEE

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 08/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/697,413

Applicant(s)

COCA ET AL.

Examiner

Helen L. Pezzuto

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 45-98 is/are pending in the application.
- 4a) Of the above claim(s) 63-83 and 85-98 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/17/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Applicant's cancellation of claims 1-44 and the addition of claims 45-98 filed in the preliminary amendment on 10/30/03 is acknowledged. Currently, claims 45-98 are pending in this application.

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 45-62, and 84, drawn to a thermosetting composition, classified in class 525, subclass 123+.
- II. Claims 63-83, drawn to a method of coating, classified in class 427, subclass 372.2.
- III. Claims 85-98, drawn to a method of electro coating, classified in class 204, subclass 192.1+.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II, III are related as mutually exclusive species in an intermediate-final product relationship.

Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product (MPEP § 806.04(b), 3rd paragraph), and the species are patentably distinct (MPEP § 806.04(h)). In the instant case, the intermediate product is deemed to be useful as is in of

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itself without the presence of additional constituents which would react in-situ to produced a mutually exclusive final product species, and the inventions are deemed patentably distinct since there is nothing on this record to show them to be obvious variants. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions anticipated by the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

3. Inventions I and II, III are further related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the thermosetting composition itself can be used as additive, crosslinking agent, or extruded/molded product, other than to be used as a coating composition.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, as shown by their different classification, and the search for Groups II and II is not required for search for Group I. Thus, restriction for examination purposes as indicated is proper.

5. During a telephone conversation with Mr. William Uhl on 8/11/04 a provisional election was made with traverse to prosecute the invention of Group I, claims 45-62 and 84. Affirmation of this election must be made by applicant in replying to this Office action. Claims 63-83, and 85-98 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 112

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7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 47, 59-60 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 47 recites the limitation "said coating composition". There is insufficient antecedent basis for this limitation in the claim 45.

Claims 59-60 recites "wherein the ethylenically unsaturated monomer is..". Which monomer does applicant intend? The acceptor or donor monomer? Please clarify.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a),

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the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 45-62, and 84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barkac et al. (US-225).

US 6,191,225 B1 to Barkac et al. discloses a thermosetting composition comprising a co-reactable particulate mixture of a polycarboxylic acid functional polymer (a), and an epoxy functional polymer (b). Specifically, polymer (a) is comprised of M^1 monomers residue of at least one ethylenically unsaturated monomer which are free of carboxylic acid moiety, and A monomer residues of at least one ethylenically unsaturated monomer which contain carboxylic acid moiety. Polymer (b) is comprised of M monomers residue of at least one ethylenically unsaturated monomer which are free of oxirane moiety, and A monomer residue of at least one ethylenically unsaturated monomer which contains oxirane moiety (col. 2, line 65 to col. 3, line 44). Polymers

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(a) and (b) has a number average molecular weight of at least 250, and each may have an alternating copolymer architecture (col. 4, lines 12-25; col. 9, lines 14-22). Typically, polymer (a) is produced by converting a precursor polymer to the resulting polycarboxylic acid functional polymer (i.e. by hydrolysis of alkyl (meth)acrylate residues or by reacting hydroxyl moiety of with cyclic anhydride) (col. 6 lines 36-59). Residue A of polymer (a) may also be derived from acrylonitrile (col. 12, lines 1-17). Prior art further teaches the removal of ATRP catalyst which meets applicant's requirement of substantially free of Lewis acids and transition metals (col. 7, lines 14-29). Suitable M^1 and M monomers can be at least one of vinyl monomers, allylic monomers and olefinic monomers, including the instant isobutylene and diisobutylene (col. 11, lines 5-10). Suitable amount of polymer (a) and (b) in prior art thermosetting composition is at least 0.5 wt% (col. 17, lines 21-52). Thus, prior art polymers (a) and (b) meet the requirement of the instant (a) and (c) as defined in the present claims. Furthermore, prior art suggest the inclusion of a second polycarboxylic acid functional material as represented by formula XV (col. 18, line 21 to col. 19, line 37; claim 22) which embraces the instant (b) as defined in claims 45, 50-56). Still further, prior art discussed the selection of M^1 and A

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residues with respect to polymer (a), wherein the selection of residue A is limited by the selection of M¹ residue (col. 12, lines 18-28), which would expect to result in an alternating structure of the recited donor/acceptor monomers wherein at least 30 mole% of the residues would have the alternating structure. Accordingly, it would have been obvious to one skilled in the art to select olefinic M monomer with the disclosed functional A monomers to achieve an alternating structure, motivated by the reasonable expectation that at least 30 mole% of the residues would have the alternating structure as presently claimed.

Double Patenting

12. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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13. Claims 45-46, 49-62 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 22 and claims dependent thereon of U.S. Patent No. 6,191,225 B1. Although the conflicting claims are not identical, they are not patentably distinct from each other for the reasons set forth in the preceding paragraph.

14. Claims 45-46, 49-62 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 13-14 of copending Application No. 10/357,817. Although the conflicting claims are not identical, they are not patentably distinct from each other because the copending application (now allowed) crosslinking agent further comprises one or more polycarboxylic acid functional materials which embraces the instant thermosetting composition comprising (a), (b), and (c) as defined in the present claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

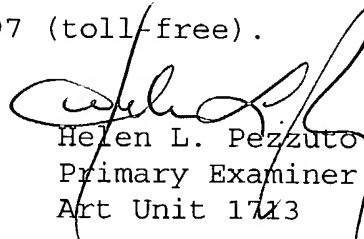
15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. White et al. (US-987 and US-905) are herein made of record.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen L. Pezzuto whose telephone number is (571) 272-1108. The examiner can normally be reached on 8 AM to 4 PM, Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Helen L. Pezzuto
Primary Examiner
Art Unit 1713

hlp